From: Keating, Jim [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP

(FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=BD5FBA58AC5E4EFD9F96C1F37EBBE199-JKEATING]

Sent: 10/28/2019 6:03:32 PM

To: Fleisig, Erica [/o=ExchangeLabs/ou=Exchange Administrative Group

(FYDIBOHF23SPDLT)/cn=Recipients/cn=57317ce4c3234afe86380beab9c70bd9-EFleisig]; Soo-Hoo, Mimi

[/o=ExchangeLabs/ou=Exchange Administrative Group

(FYDIBOHF23SPDLT)/cn=Recipients/cn=9391898296224ab1a1fad30cc6d90ab3-Soo-Hoo, Mimi]; Pettit, Elizabeth

(Libby) [/o=ExchangeLabs/ou=Exchange Administrative Group

(FYDIBOHF23SPDLT)/cn=Recipients/cn=a724dbbf3c0d40e889634d4b40fe6add-Pettit, Eli]

Subject: RE: For Jim: OR and MI writeup

Attachments: OR and MI Mercury MDV Options_10 24 19.jk comments.docx

Hi all!

I am attaching my comments. The chart, the information, and the bubble comments helped crystallize my thinking. I think Ex. 5 Deliberative Process (DP)

Ex. 5 Deliberative Process (DP)

I think i

Ex. 5 Deliberative Process (DP)

Ex. 5 Deliberative Process (DP)

As I said in one of my comments in the attachment, in either option, I think

Ex. 5 Deliberative Process (DP)

Ex. 5 Deliberative Process (DP)

From: Fleisig, Erica <Fleisig.Erica@epa.gov> Sent: Monday, October 28, 2019 9:31 AM

To: Soo-Hoo, Mimi <Soo-Hoo.Mimi@epa.gov>; Pettit, Elizabeth (Libby) <pettit.elizabetha@epa.gov>

Cc: Keating, Jim < Keating.Jim@epa.gov> **Subject:** RE: For Jim: OR and MI writeup

Yes, super helpful, thank you! Adding Jim here and re-attaching the writeup in the hopes that he has a chance to review

today. Ex. 5 AC/DP

Ex. 5 AC/DP

From: Soo-Hoo, Mimi <Soo-Hoo.Mimi@epa.gov>

Sent: Sunday, October 27, 2019 8:24 AM

To: Fleisig, Erica <<u>Fleisig, Erica@epa.gov</u>>; Pettit, Elizabeth (Libby) <<u>pettit, elizabetha@epa.gov</u>>

Subject: RE: For Jim: OR and MI writeup

Thanks for putting this together, and for raising with SHM at check-in!

Ex. 5 Deliberative Process (DP)

Many of Michigan waters are not supporting designated uses for other indigenous aquatic life and wildlife, and/or fish consumption due to mercury in the water column and/or fish tissue. There are 76,421 river miles, 872,037 acres of inland lakes and reservoirs, 41,943 square miles of Great Lakes open water, 2,998 miles of Great Lakes shoreline, and 125 miles of connecting channels in Michigan. Michigan's draft 2018 Clean Water Act sections 303(d), 305(b), and 314 Integrated Report (IR) uses data from the fish contaminant and water chemistry monitoring programs, in addition to others, to assess specific surface waters impacted by mercury and other pollutants. The IR identifies 14,289 miles of rivers and streams, 272,741 acres of inland lakes and reservoirs, all of the Great Lakes open water and shorelines, and all of connecting channels in Michigan as not supporting one or more designated uses due to elevated concentrations of mercury in the ambient water column or in fish tissue (EGLE, 2019 in draft).

Information outlined in the MDV and further evaluated and explained in the Statewide Michigan Mercury Total Maximum Daily Load (TMDL), approved by USEPA in September 2018 (MDEQ, 2018), demonstrated that the human-caused condition of mercury air deposition, prevents the attainment of the existing use and cannot be remedied within the term of this variance. Atmospheric mercury deposition in Michigan accounts for 98.6% of the mercury load to Michigan surface waters, while NPDES discharges account for 1.4%. Atmospheric mercury deposition comes from local (in-state sources), regional, national, and global sources that are both anthropogenic (80%) and natural (20%) in origin (MDEQ, 2018). Most contributions to mercury deposition originate from outside Michigan. In-state sources make up 7.8% of the state's atmospheric mercury load (MDEQ, 2018). Atmospheric mercury deposition originating from sources within and outside of Michigan must be controlled in order to reduce concentrations of mercury in fish tissue to protect human health and wildlife.

Mimi Soo-Hoo Office of Science & Technology Soo-Hoo.Mimi@epa.gov (202) 566-1192

From: Fleisig, Erica < Fleisig. Erica@epa.gov > Sent: Friday, October 25, 2019 4:08 PM

To: Pettit, Elizabeth (Libby) <pettit.elizabetha@epa.gov>; Soo-Hoo, Mimi <Soo-Hoo.Mimi@epa.gov>

Subject: FW: For Jim: OR and MI writeup

Hi guys,

Jim is going to try to review this on Monday, but I wanted to share with you both as well and note that I'm going to mention it quickly to Sara at the variance check-in on Monday Ex. 5 Deliberative Process (DP)

Ex. 5 Deliberative Process (DP)

Let me know if you have any input on this, thanks!

From: Fleisig, Erica

Sent: Thursday, October 24, 2019 8:56 PM
To: Keating, Jim < keating.jim@epa.gov >
Subject: For Jim: OR and MI writeup

Jim,

Ex. 5 AC/DP

Ex. 5 Deliberative Process (DP)

From: Johnson, Aaron < <u>Johnson.AaronK@epa.gov</u>>
Sent: Thursday, September 26, 2019 10:21 AM

To: Soo-Hoo, Mimi <Soo-Hoo.Mimi@epa.gov>; Fleisig, Erica <Fleisig.Erica@epa.gov>; Vlcan, Manjali

<Vican.Manjali@epa.gov>; Dreyfus, Melissa G. <Dreyfus.Melissa@epa.gov>; Keating, Jim <Keating, Jim@epa.gov>

Cc: Pfeifer, David <pfeifer.david@epa.gov>; Bauer, Candice <bauer.candice@epa.gov>; Prichard, Gary

<prichard.gary@epa.gov>
Subject: MI Hg MDV Factor 3

Hi all,

I've got another variance riddle for you all. Ex. 5 AC/DP

Ex. 5 AC/DP

Ex. 5 AC/DP

Thoughts or major objections?

Aaron

Aaron Johnson Water Quality Standards Specialist USEPA | Region 5 312-886-6845